

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002475**Date Inspected:** 01-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhao Chen Sun and see below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** See Below**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector, M. Paul Stovall, was present at Zhenhua Port Machinery Company (ZPMC) on Changxing Island, Shanghai, China for the purpose of monitoring Quality Control (QC) functions during the fabrication of the Self Anchored Suspension (SAS) section of the San Francisco/Oakland Bay Bridge.

New Tower Shop

The QA Inspector observed that ZPMC personnel have completed welding on Tower Skin plate weld joint number SSD1-SA16-F/G-88A and ZPMC personnel are removing the run off tabs.

The QA Inspector observed ZPMC welding personnel Xu Yan, ID #052917 performing Submerged Arc Weld (SAW) on Tower Skin plate weld number SSD1-SA15-A/F-13A, side "B". Welding was observed using Welding Procedure specification (WPS) WPS-B-T-2221-B-U3c-S-1. The QA Inspector observed the welding parameters to be 550 amperes and 29.2 volts. The QA Inspector observed ZPMC personnel needed a substantial amount of time to remove the slag form the weld, which required the use of a grinder. The work observed appeared to comply with the contract documents.

The QA Inspector observed ZPMC personnel performing SAW between the Shielded Metal Arc Weld (SMAW) tack welds in the root area to form a root pass weld. The WPS used for the SAW was WPS-B-T-2221-U3c-B-S-1.

The QA Inspector verified the welding parameters as 482 amps and 29.4 volts. The work appeared to comply with the contract documents.

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The QA Inspector observed ZPMC personnel performing heat straightening on various Tower Skin plates, cutting plate material for the Tower at two (2) separate cutting tables, machining bevels on Tower Skin plates using the horizontal mill, and grinding completed welds. The QA Inspector observed ZPMC personnel grinding the welds at the Diaphragm to Lug and Lug to Stiffener locations on the 89-meter Mock-Up.

The QA Inspector observed ZPMC QC personnel present and monitoring the work.

Bay 2

The QA Inspector observed ZPMC personnel cutting plate material for the Tower.

Bay 3

The QA Inspector observed ZPMC welding personnel Zhang Feng, ID #049769, Duan Yangang, ID #066422, Fu Yanjie, ID #066268, and Dai Lu, ID #048659 fit and tack weld WT stiffeners on Side Plates (SP): SP091-01 SP306-001, and SP037-001.

The QA Inspector observed ZPMC personnel welding fillet welds on Bottom Plate number BP030-001, at the front Gantry Welder. The WPS used is WPS-B-T-2132-3-FCAW.

The QA Inspector observed ZPMC personnel performing general fabrication consisting of the following: heat straightening various Side Plates, fitting and welding lifting lugs onto various Side Plates and Bottom Plates and personnel drilling bolt holes in various WT's.

The QA Inspector observed ZPMC QC personnel present and monitoring the work.

Bay 4

The QA Inspector observed ZPMC personnel carbon arc back gouging and grinding Tower Diaphragm plate splice weld joint number SSD1-SA317-4A and 4B.

The QA Inspector observed ZPMC welding personnel Jiang Jingteng, ID #046830 preheat and perform welding on Tower Diaphragm plate splice weld joint number ESD1-SA234-A/B-10A.

The QA Inspector observed ZPMC personnel heat straightening various Tower Diaphragm plates.

The QA Inspector observed ZPMC QC personnel monitoring the work.

Summary of Conversations:

The QA Inspector had no significant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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Inspected By:	Stovall,Paul	Quality Assurance Inspector
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Reviewed By:	Hager,Craig	QA Reviewer
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